

BENCH MARK:

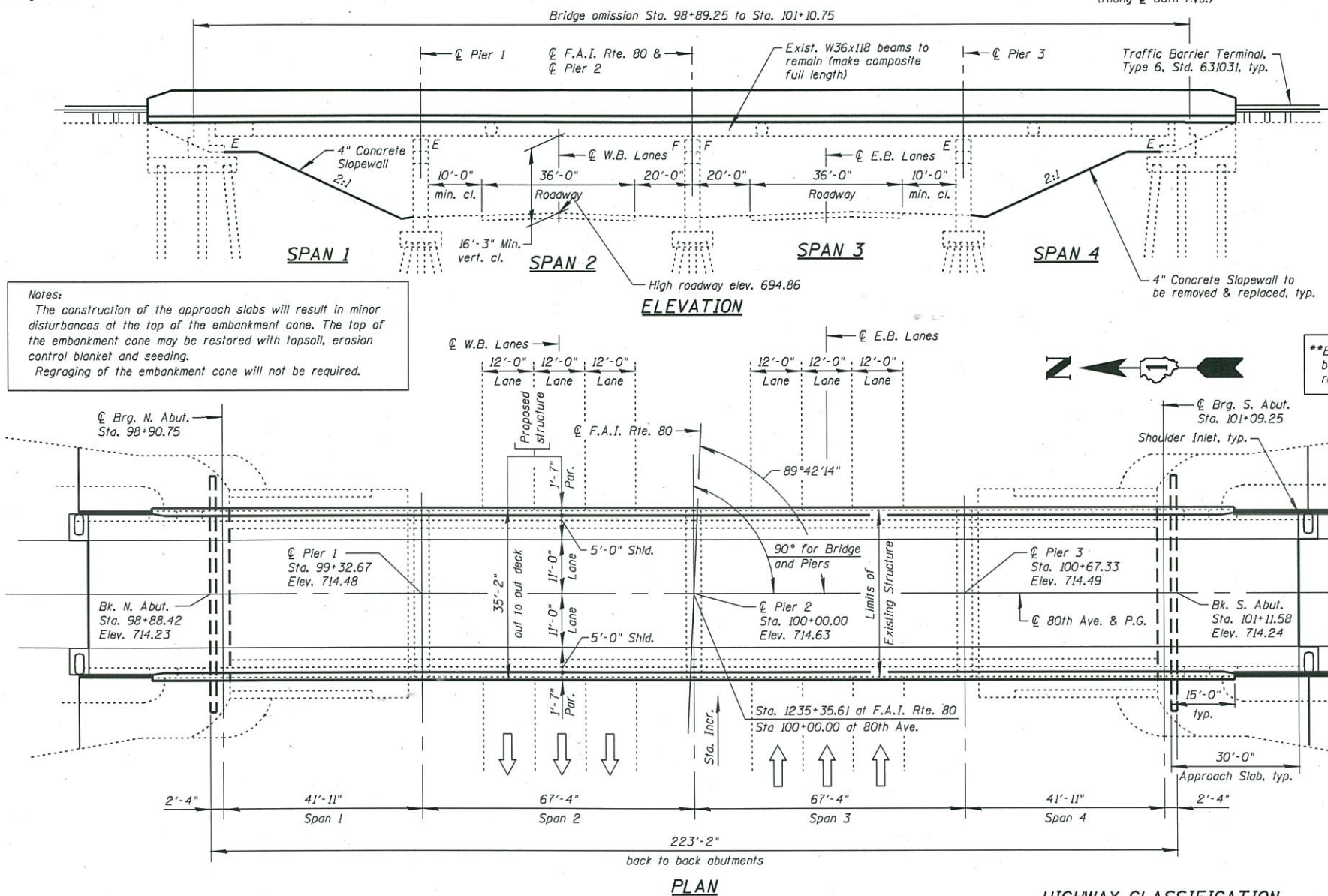
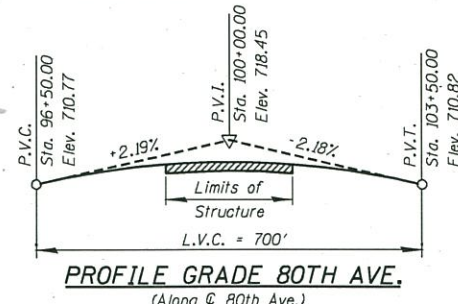
Box cut on bridge parapet at sta. 100+00.00, 16.13' L.L., Elev. 717.24

EXISTING STRUCTURE:

S.N. 099-0206 80th Avenue over Interstate 80 was built in 1967. The reinforced concrete deck is supported by continuous steel wide flange W33x118 with welded cover plates on the top and bottom flanges at the pier locations. The substructure consists of two reinforced concrete abutments, three reinforced concrete piers and four reinforced concrete wingwalls. All substructure units are pile supported. The existing deck measures 34'-0" out to out and 223'-2" back to back of abutments. Reconstruction was performed in 1993 increasing the deck thickness from 7 1/2" to 9 1/2" with a 2 1/4" microsilica concrete overlay. The structural steel was lead based painted in 1993. Permanent protection shield was installed in 2011. The existing deck is to be removed and replaced and the existing abutments modified to semi-integral abutments.

Traffic will be detoured.

Salvage: none



Notes:
The construction of the approach slabs will result in minor disturbances at the top of the embankment cone. The top of the embankment cone may be restored with topsoil, erosion control blanket and seeding. Regrading of the embankment cone will not be required.

APPROVED
FEB 13 2015
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

DESIGN STRESSES

FIELD UNITS	EXISTING STRUCTURE	FIELD UNITS	NEW CONSTRUCTION
f'c = 1,400 psi		f'c = 3,500 psi	
fs = 20,000 psi (Reinforcement)		fs = 60,000 psi (Reinforcement)	
fs = 20,000 psi (Structural Steel A-36)		fs = 36,000 psi (AASHTO M 270, Gr. 36)	

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration coefficient (A) = 0.04 g
Site coefficient (S) = 1.0

HIGHWAY CLASSIFICATION

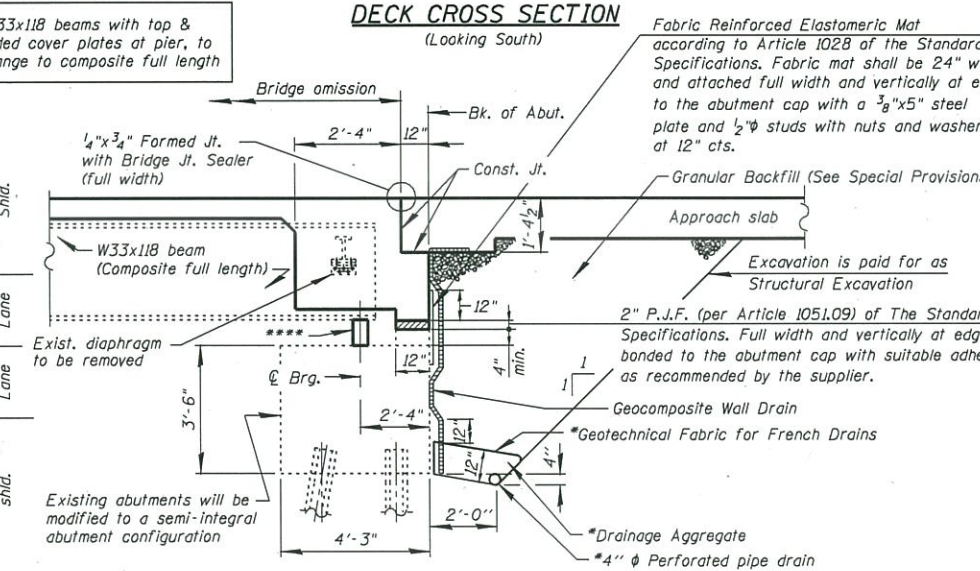
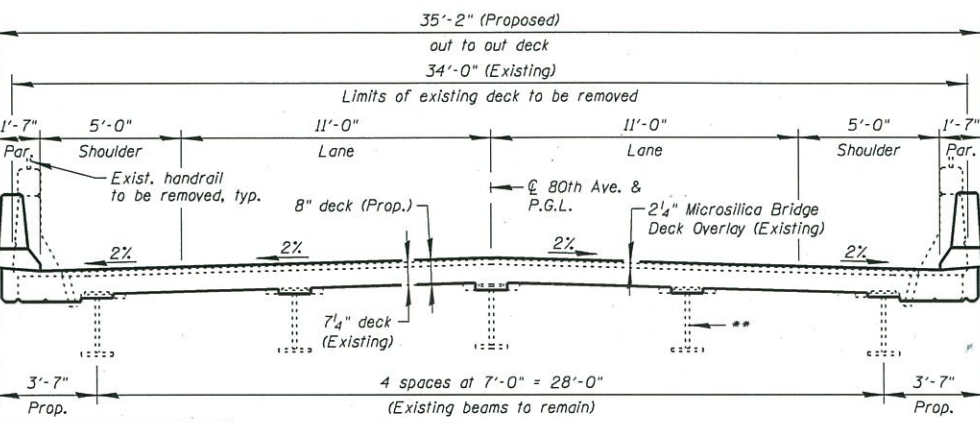
80th Avenue	F.A.I. Rte. I-80
Functional Class: Collector (Urban)	Functional Class: Interstate
ADT: 16,100 (2013); 18,200 (2021)	ADT: 98,600 (2013); 111,400 (2021)
ADTT: 805 (2013)	ADTT: 14,750 (2013)
Design Speed: 55 m.p.h.	Design Speed: 55 m.p.h.
Posted Speed: 55 m.p.h.	Posted Speed: 55 m.p.h.
2-Way Traffic	2-Way Traffic
Directional Distribution: 50:50	Directional Distribution: 50:50

DESIGN SPECIFICATIONS

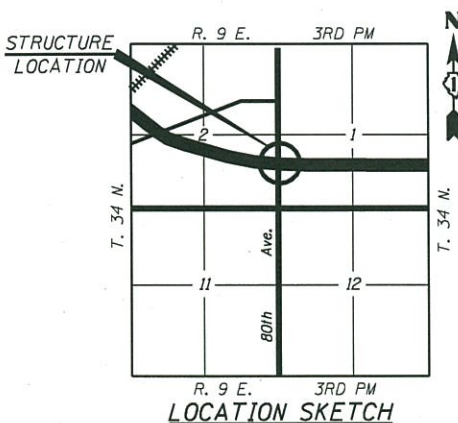
2002 AASHTO Standard Specifications for Highway Bridges
LOADING HS 20-44 (NEW CONSTRUCTION)
Allow 25#/sq. ft. for future wearing surface.

SCOPE OF WORK:

1. Remove the existing deck (34'-0" out to out) & replace with an 8" epoxy coated reinforced concrete deck (35'-2" out to out).
2. Remove and replace the abutment backwalls to allow for a semi-integral configuration.
3. Remove and replace both approach pavements.
4. Repair beam as required.
5. Clean & paint the existing structural steel.
6. Install shear connectors.
7. Perform minor concrete repairs to the piers.
8. Remove & replace slopewalls.
9. Remove the existing wingwalls to clear underside the proposed approach slabs.



SECTION THRU SEMI-INTEGRAL ABUTMENT



*Included in the cost of Pipe Underdrains for Structures. See Special Provisions.
****Remove rocker bearings and replace with elastomeric bearings with steel extensions

GENERAL PLAN & ELEVATION
80TH AVENUE OVER I-80
F.A.I. RTE. 80
SECTION 99-1HB-1-B
WILL COUNTY
STATION 100+00.00
STRUCTURE NO. 099-0206

	USER NAME = IDOT	DESIGNED - B.N.S./J.W.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. S1 OF S1 SHEETS	ILLINOIS FED. AID PROJECT
	PLLOT SCALE = 99.9999' / IN.	CHECKED - B.N.S./J.W.	REVISED -			
	DATE = 2/13/2015	DRAWN - J.V./F.M.	REVISED -			